

### **ABSTRACT**

The wireless transmission-reception system of the subject invention includes a transmitter and a receiver. The transmitter includes a compressor for compressing a signal to be transmitted and a pre-emphasis circuit for emphasizing an output signal of the compressor. The receiver includes a demodulator, an expander circuit for expanding an output signal of the demodulator, a first de-emphasis circuit connected to the demodulator in parallel with the expander for de-emphasizing the output signal of the demodulator, and a second de-emphasis circuit connected to an output signal of the expander circuit for de-emphasizing a signal expanded by the expander circuit. The expander circuit having a variable gain amplifier includes a rectifier. An output signal from the first de-emphasis circuit is sent to the rectifier and an output signal of the rectifier performs to control a gain of the variable gain amplifier.